

REMARKS/ARGUMENTS

Status of the Application

In the March 30, 2005, Non-Final Office Action, claims 10-11, 13-14, and 16-24 were rejected. In the current Response, claims 10 and 13 were amended to change the range of component I to "greater than 90 to 100 wt.%" and component II to "0 to less than 10 wt.%". Thus, claims 10-11, 13-14, and 16-24 are pending. No new matter was added.

Rejections Under 35 U.S.C. § 102(e)

Claims 10-11, 13-14, and 16-22 were rejected under 35 U.S.C. § 102(e) as being anticipated by Betz *et al.* (U.S. Patent No. 6,261,645). Applicants respectfully traverse these rejections.

Applicants have amended the ranges of component I and component II in claims 10 and 13 so that the range of component I now reads "greater than 90 to 100 wt.%" and the range of component II now reads "0 to less than 10 wt.%". Applicants agree with the Examiner in that Betz *et al.* only disclose a binder range of 5 to 90-wt% (col. 8, lines 14-21). "Prior art which teaches a value or range that is very close to, but does not overlap or touch, the claimed range does not anticipate the claimed range." MPEP § 2131.03(III) *citing Titanium Metals Corp. v. Banner*, 778 F.2d 775, 780 (Fed. Cir. 1985) ("[a]nticipation under § 102 can be found only when the reference discloses exactly what is claimed"). Because the range of binders usable in the coating compositions taught in Betz *et al.* does not overlap or touch that of Applicants' claimed invention, Applicants respectfully submit that the disclosure of Betz *et al.* does not anticipate claims 10 and 13.

Because claims 11, 14, and 16-22 are dependent claims, which recite even further limitations to the claim that has already been traversed, Applicants rely upon the arguments presented above in rebuttal to the Examiner's assertion that claims 11, 14, and 16-22 are anticipated.

Rejections Under 35 U.S.C. § 103(a)

Claims 10-11, 13-14, and 16-22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Betz *et al.* in view of Bishop *et al.* (U.S. Patent No. 4,609,718). Applicants respectfully traverse these rejections.

Applicants respectfully submit that Betz *et al.* teach away from Applicants' claimed invention. Betz *et al.* disclose a broad weight percentage range of binder from 5% to 90% based on the overall weight of the coating composition (col. 8, lines 15-21). Applicants note that Betz *et al.* only exemplify, at most, 79.2 wt% of binder in their coating compositions, with weight percentage being based on resin solids (see table 1, examples 1 and 4; based on the calculation that 76.0 parts Viaktin or Laromer® 8861 and 20.0 parts hexanediol diacrylate equals 96.0 parts resin solids). One of ordinary skill in the art would have to piece together the teachings of Betz *et al.* and go against the disclosed range of binders therein to produce Applicants' claimed invention.

Further, because of the lack of disclosure or suggestion in Betz *et al.* to utilize the specific binders claimed by Applicants at a concentration greater than 90%, Applicants respectfully submit that there was no reasonable expectation of success that a binder concentration greater than 90% would produce coatings having good flexibility and outstanding scratch resistance. Thus, in addition to the arguments above, Applicants believe that the Examiner has failed to state a *prima facie* case of obviousness against Applicants' claimed invention. As described above, at most, Betz *et al.* have working examples utilizing binders at 79.2 wt% (that is, 76.0 wt% based on the Betz *et al.* calculation of weight percentage based on total composition, see col. 8, lines 15-21). Yet, these maximal exemplary amounts of binder found in Examples 1 and 4 of Betz *et al.* are actually *outside of* the preferred weight percentage range (20 wt% to 70 wt%, see col. 8, lines 15-21) of binders taught by Betz *et al.* Thus, without the benefit of Applicants' disclosure, it is unclear how one of ordinary skill in the art would know to select the specific binders claimed by Applicants in the weight percentage range claimed by Applicants based solely on the teaching of Betz *et al.* to produce coatings having good flexibility and outstanding scratch resistance.

As a corollary to the arguments presented above, utilization of reactive thinners in an amount outside of Applicants' claimed range (for example, those in the Betz *et al.* examples) would result in poor adhesion of a repair coating on the top of the clear coat. When a clear coat needs to be repaired, sanding of the clear coat is required before applying the repair coating. If the proportion of the reactive thinner is sufficiently low, as in Applicants' claimed 0 to less than 10 wt.% range, sanding is not

required and the repair coating will adhere well to the clear coat. If a relatively unreactive reactive thinner is used, there is a further problem. When the proportion of relatively unreactive reactive thinner in the coating is too high, the thinner may remain in the coating, which weakens the film. This problem occurs especially if the clear coat is applied on dark undercoatings such as, for example, black base coat.

Bishop *et al.*, cited by the Examiner for the sole purpose of teaching that “any organic diisocyanate can be used to form the acrylate-terminated oligomers”, adds no disclosure, suggestion, or motivation that would enable one of ordinary skill in the art to produce Applicants’ claimed invention. Specifically, the Examiner states Bishop *et al.* “teach that any organic diisocyanate can be used to form the acrylate-terminated oligomers, such as a diisocyanate in which a linear aliphatic chain containing at least 6 carbon atoms separates the two isocyanate groups.” (internal markings omitted). Applicants note that their claim 10 and 13 inventions require “diisocyanates having 8 C atoms, polyisocyanates based on an acyclic aliphatic diisocyanate having 8 C atoms, and combinations thereof”, a species of Bishop *et al.*’s disclosed genus of at least six carbon atoms. In order to establish a *prima facie* case of obviousness where a reference discloses a genus and the present application claims a species of that genus, “[s]ome motivation to select the claimed species must be taught by the prior art.” MPEP § 2144.08(II)(A)(4)(a) (emphasis added). The Examiner continues to argue that, because of the mere fact that aliphatic urethane (meth)acrylates are well known (a point the Applicants do not dispute), a disclosure of a genus of diisocyanates having at least six carbons being used to produce acrylate-terminated oligomers provides the requisite teaching as to diisocyanates having specifically eight carbons being used to produce aliphatic urethane (meth)acrylates. Yet, throughout prosecution, the Examiner has failed to provide any reason *why* one of ordinary skill in the art would be motivated to use diisocyanates with eight carbon atoms to produce the aliphatic urethane (meth)acrylates utilized in Applicants’ claimed process based on the disclosure of Bishop *et al.* Indeed, in the earlier office action dated August 2, 2004, the Examiner stated that “a secondary reference of Bishop is relied on not to show the urethane methacrylates of Applicants’ claimed invention, but to show that in well known processes for making urethane acrylates (methacrylates), *any* organic diisocyanate such as a diisocyanate in which a linear aliphatic chain containing at least 6 carbon

atoms separates the two isocyanate groups can be successfully used.” (emphasis in original). As this statement demonstrates, there is simply no motivation within Bishop *et al.* to select eight carbon diisocyanates to produce Applicants’ claimed invention instead of, for example, a 6 carbon, 7 carbon, 9 carbon, 10 carbon, et cetera diisocyanate. The only motivation therein is to select a diisocyanate of at least 6 carbon atoms, a genus theoretically comprising an infinite number of compounds. Consequently, Applicants believe that the motivation to select diisocyanates of eight carbon atoms comes solely from *Applicants’ disclosure*. That, however, is proscribed hindsight reconstruction. Thus, Applicants respectfully submit that claims 10 and 13 are patentable over Betz *et al.* in view of Bishop *et al.*

Because claims 11, 14, and 16-22 are dependent claims, which recite even further limitations to the claim that has already been traversed, Applicants rely upon the arguments presented above in rebuttal to the Examiner’s assertion that claims 11, 14, and 16-22 are unpatentable.

Claims 23 and 24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Betz *et al.* in view of Bishop *et al.* Because claims 23 and 24 are dependent claims, which recite even further limitations to the claim that has already been traversed, Applicants rely upon the arguments presented above in rebuttal to the Examiner’s assertion that claims 23 and 24 are unpatentable.

Summary

In view of the foregoing amendments and remarks, Applicants submit that this application is in condition for allowance. In order to expedite disposition of this case, the Examiner is invited to contact Applicants' representative at the telephone number below to resolve any remaining issues. Should there be a fee due which is not accounted for, please charge such fee to Deposit Account No. 04-1928 (E.I. du Pont de Nemours and Company).

Respectfully submitted,

By: 

Hilmar L. Fricke
Attorney for Applicants
Reg. No.: 22,384
Telephone: (302) 984-6058
Facsimile: (302) 658-1192

Dated: June 28, 2005